



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air State Facility
Permit ID: 9-2911-00063/00006
Mod 0 Effective Date: 05/02/2011 Expiration Date: 05/01/2021
Mod 1 Effective Date: 12/06/2013 Expiration Date: 05/01/2021
Mod 2 Effective Date: 11/14/2016 Expiration Date: 05/01/2021

Permit Issued To: CASCADES CONTAINERBOARD PACKAGING INC
1061 RUE PARENT
ST. BRUNO, QC J3V 6R7

Contact: Lucie-Claude Lalonde
Cascades Containerboard Packaging Inc.
1061 rue Parent
Saint Bruno de Montarville, QC J3V 6R7
(450) 461-8600

Facility: Cascades Containerboard Packaging - Niagara Falls Div
4001 PACKARD RD
NIAGARA FALLS, NY 14303

Contact: Michael Hanson
Cascades Containerboard Packaging Inc.
4001 Packard Road
Niagara Falls, NY 14304
(716) 304-7256

Description:
This Air State Facility (ASF) permit combines two existing ASF facility permits for Cascades Containerboard Packaging (formerly known as Norampac), a corrugating medium manufacturing facility, and Greenpac, a linerboard manufacturing facility. Process operations include pulping, forming, pressing, drying, and dry end handling. The facility performs aerobic and anaerobic pretreatment, with emissions controlled by a flare or boiler.

The facility is organized into three emission units:

- C-ASCAD is the Cascades Containerboard Packaging facility, which consists of a corrugating medium manufacturing process. Operations include stock preparation (pulpers), formers, press and dryer sections,
- 2-GREEN is the Greenpac facility, which consists of a linerboard manufacturing process. Operations include stock preparation (pulpers), formers, press, and dryer sections, and
- 3-TREAT which is the wastewater treatment system shared by Cascades Containerboard Packaging and Greenpac. It consists of anaerobic and aerobic treatment systems, followed by dissolved air flotation system. Treated wastewater flows to the sanitary sewer. The



anaerobic treatment system generates biogas that flows to two scrubbers (in series) which remove hydrogen sulfide from the biogas prior to it being combusted in either a modified boiler or the flare. The modified boiler provides steam to the Cascades Containerboard Packaging facility and can also operate on natural gas.

The facility will limit actual emissions of volatile organic compounds (VOC) to less than 49 tons per year, on a 12-month rolling total basis, for purposes of capping out of the major facility applicability requirements of 6NYCRR Part 201-6. Actual VOC emissions shall be calculated based on the usage of coatings, adhesives, solvents, and other VOC containing products, the VOC content of the products, and acceptable emission factors. The facility shall submit to the Department an annual emission cap report for the previous calendar year by January 30th of each year. The report must include the monthly VOC emissions and total VOC emissions for each rolling 12-month period throughout the calendar year, and include VOC usage, VOC content of materials, and emission factors.

The modified boiler (Boiler #7) had a new burner installed which was designed to provide a maximum heat input capacity of 98 MMBtu/hr (80,000 pounds per hour steam). This design is permanent and cannot be reversed and prevents the boiler from operating at a capacity greater than 100 MMBtu/hr which would make it subject to the New Source Performance Standard (NSPS) 40 CFR Part 63 Subpart Db. The boiler, having a heat input capacity less than 100 MMBtu/hr, is designated as a small boiler and subject to the NSPS 40 CFR 60 Subpart Dc.

The facility is subject to the opacity, particulate loading, and emission control requirements of 6 NYCRR Part 212. Specifically, hydrogen sulfide (H₂S) emissions from the biogas must be controlled to a minimum efficiency of 99% per Part 212-2.3(b) based on the H₂S emission rate potential and an assigned environmental rating of 'A'. The scrubbers have achieved a destruction efficiency greater than 99% without considering the additional control provided by the boiler and flare. Cascades Containerboard Packaging must assure compliance by monitoring the scrubber inlet and outlet H₂S concentrations with periodic data recording performed electronically and manually. Adequate data must be maintained to calculate average H₂S concentrations and destruction efficiency.

The H₂S which remains in the biogas when it exits the scrubbers and is sent to the boiler or flare for use as a fuel is converted to sulfur dioxide. Per Part 212-2.3(a), Cascades Containerboard Packaging was required to complete an air dispersion modeling analysis to determine the maximum off-site sulfur dioxide (SO₂) concentration. The analysis indicated that the expected one-hour and annual maximum SO₂ concentrations are well below the Federal and State standards of 196.5 and 80 mcg/m³, respectively.

New York State Department of Environmental Conservation
Facility DEC ID: 9291100063



By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: LISA M CZECHOWICZ
 NYSDEC - REGION 9
 270 MICHIGAN AVE
 BUFFALO, NY 14203-2915

Authorized Signature: _____ Date: ___ / ___ / _____



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
 - Applications for permit renewals, modifications and transfers
 - Applications for permit renewals, modifications and transfers
 - Permit modifications, suspensions or revocations by the Department
 - Permit modifications, suspensions or revocations by the Department

Facility Level

- Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS



DEC GENERAL CONDITIONS
****** General Provisions ******
GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department

Applicable State Requirement: ECL 19-0305

Item 1.1:

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

Item 1.2:

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations

Applicable State Requirement: ECL 3-0301 (2) (m)

Item 2.1:

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Condition 2-1: Applications for permit renewals, modifications and transfers

Applicable State Requirement: 6 NYCRR 621.11

Item 2-1.1:

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 2-1.2:

The permittee must submit a renewal application at least 180 days before the expiration of permits for Title V and State Facility Permits.

Item 2-1.3

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.



Condition 3: Applications for permit renewals, modifications and transfers
Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 3.2:

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

Condition 1-1: Permit modifications, suspensions or revocations by the Department

Applicable State Requirement: 6 NYCRR 621.13

Item 1-1.1:

The Department reserves the right to exercise all available authority to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

Condition 4: Permit modifications, suspensions or revocations by the Department
Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:

The Department reserves the right to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;



e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

****** Facility Level ******

Condition 5: Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS

Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:

Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator
Region 9 Headquarters
Division of Environmental Permits
270 Michigan Avenue
Buffalo, NY 14203-2915
(716) 851-7165

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**ARTICLE 19: AIR POLLUTION CONTROL - AIR STATE FACILITY
PERMIT**

IDENTIFICATION INFORMATION

Permit Issued To: CASCADDES CONTAINERBOARD PACKAGING INC
1061 RUE PARENT
ST. BRUNO, QC J3V 6R7

Facility: Cascades Containerboard Packaging - Niagara Falls Div
4001 PACKARD RD
NIAGARA FALLS, NY 14303

Authorized Activity By Standard Industrial Classification Code:
2631 - PAPERBOARD MILLS

Mod 0 Permit Effective Date: 05/02/2011

Permit Expiration Date: 05/01/2021

Mod 1 Permit Effective Date: 12/06/2013

Permit Expiration Date: 05/01/2021

Mod 2 Permit Effective Date: 11/14/2016

Permit Expiration Date: 05/01/2021



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 2-1 6 NYCRR Subpart 201-7: Facility Permissible Emissions
- *2-2 6 NYCRR Subpart 201-7: Capping Monitoring Condition
- 1-1 6 NYCRR 211.1: Air pollution prohibited
- 2-3 6 NYCRR 212-1.6 (a): Compliance Demonstration
- 2-4 6 NYCRR 212-2.4 (b): Compliance Demonstration

Emission Unit Level

EU=3-TREAT

- 2-5 6 NYCRR 212-2.3 (a): Compliance Demonstration
- 2-6 40CFR 60, NSPS Subpart Dc: Compliance Demonstration

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 2 ECL 19-0301: Contaminant List
- 1-3 6 NYCRR 201-1.4: Malfunctions and start-up/shutdown activities
- 4 6 NYCRR Subpart 201-5: Emission Unit Definition
- 1-4 6 NYCRR 201-5.2 (c): Renewal deadlines for state facility permits
- 1-5 6 NYCRR 201-5.3 (c): Compliance Demonstration
- 6 6 NYCRR 211.2: Visible Emissions Limited

Emission Unit Level

- 7 6 NYCRR Subpart 201-5: Emission Point Definition By Emission Unit
- 8 6 NYCRR Subpart 201-5: Process Definition By Emission Unit

EU=3-TREAT

- 2-7 6 NYCRR 212-2.3 (b): Compliance Demonstration

NOTE: * preceding the condition number indicates capping.



FEDERALLY ENFORCEABLE CONDITIONS

****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

This section contains terms and conditions which are federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Sealing - 6 NYCRR 200.5

The Commissioner may seal an air contamination source to prevent its operation if compliance with 6 NYCRR Chapter III is not met within the time provided by an order of the Commissioner issued in the case of the violation.

Sealing means labeling or tagging a source to notify any person that operation of the source is prohibited, and also includes physical means of preventing the operation of an air contamination source without resulting in destruction of any equipment associated with such source, and includes, but is not limited to, bolting, chaining or wiring shut control panels, apertures or conduits associated with such source.

No person shall operate any air contamination source sealed by the Commissioner in accordance with this section unless a modification has been made which enables such source to comply with all requirements applicable to such modification.

Unless authorized by the Commissioner, no person shall remove or alter any seal affixed to any contamination source in accordance with this section.

Item B: Acceptable Ambient Air Quality - 6 NYCRR 200.6

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Item C: Maintenance of Equipment - 6 NYCRR 200.7

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications,



required to operate such device effectively.

Item D: Unpermitted Emission Sources - 6 NYCRR 201-1.2

If an existing emission source was subject to the permitting requirements of 6 NYCRR Part 201 at the time of construction or modification, and the owner and/or operator failed to apply for a permit for such emission source then the following provisions apply:

(a) The owner and/or operator must apply for a permit for such emission source or register the facility in accordance with the provisions of Part 201.

(b) The emission source or facility is subject to all regulations that were applicable to it at the time of construction or modification and any subsequent requirements applicable to existing sources or facilities.

Item E: Recycling and Salvage - 6 NYCRR 201-1.7

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of 6 NYCRR.

Item F: Prohibition of Reintroduction of Collected Contaminants to the Air - 6 NYCRR 201-1.8

No person shall unnecessarily remove, handle, or cause to be handled, collected air contaminants from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Item G: Proof of Eligibility for Sources Defined as Exempt Activities - 6 NYCRR 201-3.2 (a)

The owner and/or operator of an emission source or unit that is eligible to be exempt, may be required to certify that it operates within the specific criteria described in 6 NYCRR Subpart 201-3. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to 6 NYCRR Subpart 201-3, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations, or law.

Item H: Proof of Eligibility for Sources Defined as Trivial



All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

FEDERAL APPLICABLE REQUIREMENTS
The following conditions are federally enforceable.

Condition 2-1: Facility Permissible Emissions
Effective between the dates of 11/14/2016 and 05/01/2021

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 2-1.1:

The sum of emissions from the emission units specified in this permit shall not equal or exceed the following

Potential To Emit (PTE) rate for each regulated contaminant:

CAS No: 0NY998-00-0 (From Mod 2) PTE: 99,000 pounds
per year
Name: VOC

Condition 2-2: Capping Monitoring Condition
Effective between the dates of 11/14/2016 and 05/01/2021

Applicable Federal Requirement:6 NYCRR Subpart 201-7

Item 2-2.1:

Under the authority of 6 NYCRR Part 201-7, this condition contains an emission cap for the purpose of limiting emissions from the facility, emission unit or process to avoid being subject to the following applicable requirement(s) that the facility, emission unit or process would otherwise be subject to:

6 NYCRR 201-6.1

Item 2-2.2:

Operation of this facility shall take place in accordance with the approved criteria, emission limits, terms, conditions and standards in this permit.

Item 2-2.3:

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart,

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during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

Item 2-2.4:

On an annual basis, unless otherwise specified below, beginning one year after the granting of an emissions cap, the responsible official shall provide a certification to the Department that the facility has operated all emission units within the limits imposed by the emission cap. This certification shall include a brief summary of the emissions subject to the cap for that time period and a comparison to the threshold levels that would require compliance with an applicable requirement.

Item 2-2.5:

The emission of pollutants that exceed the applicability thresholds for an applicable requirement, for which the facility has obtained an emissions cap, constitutes a violation of Part 201 and of the Act.

Item 2-2.6:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 0NY998-00-0 VOC

Item 2-2.7:

Compliance Demonstration shall include the following monitoring:

Capping: Yes

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

The facility will limit actual emissions of volatile organic compounds (VOC) to less than 49 tons per year, on a 12-month rolling total basis, for purposes of capping out of the major facility applicability requirements of 6NYCRR Part 201-6.

Actual VOC emissions shall be calculated based on the usage of coatings, adhesives, solvents, process chemicals, wastewater treatment chemicals and other VOC containing products, the VOC content of the products, and acceptable emission factors. The general accuracy of the emission calculations shall be verified by maintaining pertinent records including, but not limited to: purchase and/or production records and VOC content of products. All records with corresponding emission calculations shall be kept on-site for a minimum of five years. This information shall be made available to the Department on request.

The facility shall submit to the Department an Annual Emission Cap Report for the previous calendar year by January 30th of each year. The report must include the monthly VOC emissions and total VOC emissions for each

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Upper Permit Limit: 20 percent
Reference Test Method: USEPA Reference Method 9
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION
Averaging Method: 6-MINUTE AVERAGE (METHOD 9)
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 2-4: Compliance Demonstration
Effective between the dates of 11/14/2016 and 05/01/2021

Applicable Federal Requirement: 6 NYCRR 212-2.4 (b)

Item 2-4.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: 2-GREEN

Emission Unit: 3-TREAT

Emission Unit: C-ASCAD

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 2-4.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: INTERMITTENT EMISSION TESTING

Monitoring Description:

Particulate emissions from any process emission source for which an application was received by the department after July 1, 1973 are restricted as follows:

No facility owner or operator shall cause or allow emissions of particulate that exceed 0.050 grains per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis, except in instances where determination of permissible emission rate using process weight for a specific source category emitting solid particulate is based upon Table 5 and Table 6 of Subdivisions 212-2.5(a) and (b) of this Part.

The Department reserves the right to require the completion of a performance test using EPA Reference Method 5 to assure compliance with the allowable particulate emission rate.

Parameter Monitored: PARTICULATES
Upper Permit Limit: 0.050 grains per dscf
Reference Test Method: EPA Reference Method 5
Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING

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DESCRIPTION
Averaging Method: AVERAGING METHOD AS PER REFERENCE TEST
METHOD INDICATED
Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

**** Emission Unit Level ****

Condition 2-5: Compliance Demonstration
Effective between the dates of 11/14/2016 and 05/01/2021

Applicable Federal Requirement: 6 NYCRR 212-2.3 (a)

Item 2-5.1:

The Compliance Demonstration activity will be performed for:

Emission Unit: 3-TREAT

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 2-5.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Cascades Containerboard Packaging completed an air dispersion modeling analysis to determine the maximum off-site sulfur dioxide (SO₂) concentration. The analysis submitted in support of this application, and most recently updated via letter from C&S Companies dated May 10, 2016, indicates that the expected one-hour and annual maximum SO₂ concentrations are well below the Federal and State standards of 196.5 and 80 mcg/m³, respectively.

When applying for permit renewal, Cascades Containerboard Packaging shall update the air dispersion modeling analysis as necessary based on current operational data and to address any changes to the air quality standards for SO₂.

Monitoring Frequency: UPON PERMIT RENEWAL

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 2-6: Compliance Demonstration
Effective between the dates of 11/14/2016 and 05/01/2021

Applicable Federal Requirement: 40CFR 60, NSPS Subpart Dc

Item 2-6.1:

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The Compliance Demonstration activity will be performed for:

Emission Unit: 3-TREAT

Regulated Contaminant(s):

CAS No: 007446-09-5	SULFUR DIOXIDE
CAS No: 007783-06-4	HYDROGEN SULFIDE

Item 2-6.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Biogas is generated in the Cascades Containerboard Packaging (CCP) anaerobic wastewater treatment system when organic compounds containing carbon, hydrogen, and oxygen are consumed by bacteria in the absence of oxygen, producing carbon dioxide and methane. The biogas is typically made up of 50-80% methane, 20-50% carbon dioxide, and traces of gases such as hydrogen, carbon monoxide (CO), and nitrogen. The biogas produced by the anaerobic digesters is directed to two biogas scrubbers for hydrogen sulfide (H₂S) removal and subsequently combusted in Boiler #7 to produce steam, or in the backup flare. Boiler #7 also combusts natural gas to supplement biogas when required.

Boiler #7 is an existing Foster Wheeler unit originally equipped with a 123 MMBtu/hr natural gas burner; the boiler was out of use from 2003 until it was reactivated via permit modification in 2013 for this new use. A new burner was installed which was designed to provide a maximum heat input capacity of 98 MMBtu/hr which is equivalent to 80,000 pounds per hour steam. The boiler is equipped with fully metered cross limited combustion control, meaning that fuel input (biogas and natural gas) to the boiler is continuously measured by two independent fuel flow meters. The individual flows for each fuel are monitored, summed for total fuel input, and recorded on a daily basis. Using the heat contents of each fuel, the control system calculates the fuel input to the boiler.

This design is permanent and cannot be reversed and prevents the boiler from operating at a capacity greater than 100 MMBtu/hr which would make it subject to the New Source Performance Standard (NSPS) 40 CFR Part 63 Subpart Db. The boiler, having a heat input capacity less than 100 MMBtu/hr, is designated as a small boiler and subject to the NSPS 40 CFR 60 Subpart Dc. The area source boiler (40 CFR Part 63 Subpart JJJJJ) rule does not apply to boilers

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burning gaseous fuel, including biogas.

A control system must be used to ensure the correct ratio(s) of air-to-fuel at the burner. If the boiler is unavailable or more biogas is produced than the boiler can accommodate, the backup flare will combust the excess biogas.

The fuel flow meters must be maintained to monitor the actual heat input of the boiler, and records of fuel consumption must be maintained for a period of two years. An ongoing program is required to monitor the actual heat input of the boiler by maintaining records of fuel consumption (as required by §60.48c (g)) and fuel heating value.

Parameter Monitored: HEAT INPUT

Upper Permit Limit: 100 million Btu per hour

Monitoring Frequency: DAILY

Averaging Method: Daily block average

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY



STATE ONLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
- (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item B: Public Access to Recordkeeping for Facilities With State Facility Permits - 6 NYCRR 201-1.10 (a)

Where emission source owners and/or operators keep records pursuant to compliance with the operational flexibility requirements of 6 NYCRR Subpart 201-5.4(b)(1), and/or the emission capping requirements of 6 NYCRR Subparts 201-7.2(d), 201-7.3(f), 201-7.3(g), 201-7.3(h)(5), 201-7.3(i) and 201-7.3(j), the Department



will make such records available to the public upon request in accordance with 6 NYCRR Part 616 - Public Access to Records. Emission source owners and/or operators must submit the records required to comply with the request within sixty working days of written notification by the Department of receipt of the request.

Item C: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

STATE ONLY APPLICABLE REQUIREMENTS

The following conditions are state only enforceable.

**Condition 2: Contaminant List
Effective between the dates of 05/02/2011 and 05/01/2021**

Applicable State Requirement:ECL 19-0301

Item 2.1:

Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 007446-09-5
Name: SULFUR DIOXIDE

CAS No: 007783-06-4
Name: HYDROGEN SULFIDE



CAS No: 0NY075-00-0
Name: PARTICULATES

CAS No: 0NY998-00-0
Name: VOC

Condition 1-3: Malfunctions and start-up/shutdown activities
Effective between the dates of 12/06/2013 and 05/01/2021

Applicable State Requirement:6 NYCRR 201-1.4

Item 1-3.1:

(a) The facility owner or operator shall take all necessary and appropriate actions to prevent the emission of air pollutants that result in contravention of any applicable emission standard during periods of start-up, shutdown, or malfunction.

(b) The facility owner or operator shall compile and maintain records of all equipment malfunctions, maintenance, or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the department when requested to do so, or when so required by a condition of a permit issued for the corresponding air contamination source. Such reports shall state whether any violations occurred and, if so, whether they were unavoidable, include the time, frequency and duration of the maintenance and/or start-up/shutdown activities, and an estimate of the emission rates of any air contaminants released. Such records shall be maintained for a period of at least five years and made available for review to department representatives upon request. Facility owners or operators subject to continuous stack monitoring and quarterly reporting requirements need not submit additional reports for equipment maintenance or start-up/shutdown activities for the facility to the department.

(c) In the event that emissions of air contaminants in excess of any emission standard in this Subchapter occur due to a malfunction, the facility owner or operator shall compile and maintain records of the malfunction and notify the department as soon as possible during normal working hours, but not later than two working days after becoming aware that the malfunction occurred. When requested by the department, the facility owner or operator shall submit a written report to the department describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates.

(d) The department may also require the owner or operator to include, in reports described under Subdivisions (b) and (c) of this Section, an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions.

(e) A violation of any applicable emission standard resulting from start-up, shutdown, or malfunction conditions at a permitted or registered facility may not be subject to an enforcement action by the department and/or penalty if the department determines, in its sole discretion, that such a violation was unavoidable. The actions and recordkeeping and reporting requirements listed above must be adhered to in such circumstances.

Condition 4: Emission Unit Definition
Effective between the dates of 05/02/2011 and 05/01/2021



Applicable State Requirement:6 NYCRR Subpart 201-5

Item 4.1(From Mod 2):

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 2-GREEN

Emission Unit Description:

The emission unit is the Greenpac facility, which consists of a linerboard manufacturing process. Operations include stock preparation (pulpers), formers, press, and dryer sections.

Building(s): GFAC

Item 4.2(From Mod 2):

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: 3-TREAT

Emission Unit Description:

The emission unit is the wastewater treatment system. It consists of anaerobic and aerobic treatment systems, followed by dissolved air flotation system. Treated wastewater flows to the Niagara Falls Water Board sanitary sewer.

The biogas, generated by the anaerobic treatment system, flows to two scrubbers in series for hydrogen sulfide removal prior to being combusted in either the modified boiler (#7 boiler) or the flare. The modified boiler provides steam to the Cascades Containerboard Packaging facility and can also operate on natural gas.

Building(s): NFAC
WWTP

Item 4.3(From Mod 2):

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: C-ASCAD

Emission Unit Description:

The emission unit is the Cascades Containerboard Packaging (formerly known as Norampac) facility, which consists of a corrugating medium manufacturing process. Operations include stock preparation (pulpers), formers, press and dryer sections.

Building(s): NFAC

**Condition 1-4: Renewal deadlines for state facility permits
Effective between the dates of 12/06/2013 and 05/01/2021**

Applicable State Requirement:6 NYCRR 201-5.2 (c)

Item 1-4.1:

The owner or operator of a facility having an issued state facility permit shall submit a complete



Emission Unit: 2-GREEN

Emission Point: 00001
Height (ft.): 91 Diameter (in.): 40
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00002
Height (ft.): 91 Diameter (in.): 42
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00004
Height (ft.): 91 Diameter (in.): 18
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00008
Height (ft.): 101 Diameter (in.): 68
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00009
Height (ft.): 91 Diameter (in.): 64
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00011
Height (ft.): 91 Diameter (in.): 64
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00014
Height (ft.): 91 Diameter (in.): 40
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00017
Height (ft.): 91 Diameter (in.): 36
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00018
Height (ft.): 91 Diameter (in.): 60
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00019
Height (ft.): 91 Diameter (in.): 60
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00020
Height (ft.): 91 Diameter (in.): 60
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00021
Height (ft.): 91 Diameter (in.): 60
NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00022



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Height (ft.): 91 Diameter (in.): 36
 NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00024
 Height (ft.): 91 Diameter (in.): 52
 NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00025
 Height (ft.): 91 Diameter (in.): 52
 NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00027
 Height (ft.): 91 Diameter (in.): 48
 NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Emission Point: 00028
 Height (ft.): 91 Diameter (in.): 36
 NYTMN (km.): 4778.756 NYTME (km.): 173.344 Building: GFAC

Item 7.2(From Mod 2):

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: 3-TREAT

Emission Point: 00036
 Height (ft.): 75 Diameter (in.): 12
 NYTMN (km.): 4778.8 NYTME (km.): 173.3 Building: WWTP

Emission Point: N0020
 Height (ft.): 50 Diameter (in.): 54
 NYTMN (km.): 4778.697 NYTME (km.): 173.4 Building: NFAC

Item 7.3(From Mod 2):

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: C-ASCAD

Emission Point: N0001
 Height (ft.): 34 Diameter (in.): 54
 NYTMN (km.): 4778.7 NYTME (km.): 173.4 Building: NFAC

Emission Point: N0002
 Height (ft.): 34 Diameter (in.): 60
 NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N0003
 Height (ft.): 34 Diameter (in.): 54
 NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N0004
 Height (ft.): 34 Diameter (in.): 54
 NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

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Emission Point: N0006
Height (ft.): 34 Diameter (in.): 54
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N0007
Height (ft.): 34 Diameter (in.): 54
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N0011
Height (ft.): 34 Diameter (in.): 48
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N0017
Height (ft.): 35 Diameter (in.): 24
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N005A
Height (ft.): 34 Diameter (in.): 54
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N005B
Height (ft.): 34 Diameter (in.): 54
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N005C
Height (ft.): 34 Diameter (in.): 54
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N008A
Height (ft.): 34 Diameter (in.): 36
NYTMN (km.): 4778.597 NYTME (km.): 173.416 Building: NFAC

Emission Point: N008B
Height (ft.): 34 Diameter (in.): 36
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N009A
Height (ft.): 34 Diameter (in.): 36
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N009B
Height (ft.): 34 Diameter (in.): 48
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N009C
Height (ft.): 34 Diameter (in.): 48
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N016A
Height (ft.): 37 Diameter (in.): 54
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

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Emission Point: N016B
Height (ft.): 37 Diameter (in.): 24
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Emission Point: N018A
Height (ft.): 35 Diameter (in.): 24
NYTMN (km.): 4778.697 NYTME (km.): 173.416 Building: NFAC

Condition 8: Process Definition By Emission Unit
Effective between the dates of 05/02/2011 and 05/01/2021

Applicable State Requirement:6 NYCRR Subpart 201-5

Item 8.1(From Mod 2):

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 2-GREEN
Process: GRE Source Classification Code: 3-07-004-01

Emission Source/Control: FORMR - Process
Design Capacity: 1,500 tons per day

Emission Source/Control: G-DRY - Process
Design Capacity: 1,500 tons per day

Emission Source/Control: GPRES - Process
Design Capacity: 1,500 tons per day

Emission Source/Control: GPULP - Process
Design Capacity: 1,500 tons per day

Emission Source/Control: MISTC - Process

Emission Source/Control: REELP - Process
Design Capacity: 1,500 tons per day

Emission Source/Control: SCREN - Process
Design Capacity: 1,500 tons per day

Emission Source/Control: THICK - Process
Design Capacity: 1,500 tons per day

Emission Source/Control: VACUM - Process
Design Capacity: 1,500 tons per day

Emission Source/Control: WINDP - Process
Design Capacity: 1,500 tons per day

Item 8.2(From Mod 2):

This permit authorizes the following regulated processes for the cited Emission Unit:



Emission Unit: 3-TREAT
Process: BIO Source Classification Code: 1-03-007-99

Emission Source/Control: BOLER - Combustion
Design Capacity: 99.9 million Btu per hour

Emission Source/Control: FLARE - Control
Control Type: FLARING

Emission Source/Control: SCRUB - Control
Control Type: BIOLOGICAL OXIDATION

Emission Source/Control: ANAER - Process

Item 8.3(From Mod 2):

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: 3-TREAT
Process: NGS Source Classification Code: 1-03-006-02

Emission Source/Control: BOLER - Combustion
Design Capacity: 99.9 million Btu per hour

Item 8.4(From Mod 2):

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: C-ASCAD
Process: CAS Source Classification Code: 3-07-004-01

Emission Source/Control: DRYER - Process
Design Capacity: 750 tons per day

Emission Source/Control: EFFLT - Process
Design Capacity: 750 tons per day

Emission Source/Control: PRESS - Process
Design Capacity: 750 tons per day

Emission Source/Control: PULPR - Process
Design Capacity: 750 tons per day

Emission Source/Control: STOCK - Process
Design Capacity: 750 tons per day

Condition 2-7: Compliance Demonstration
Effective between the dates of 11/14/2016 and 05/01/2021

Applicable State Requirement:6 NYCRR 212-2.3 (b)

Item 2-7.1:

The Compliance Demonstration activity will be performed for:

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Emission Unit: 3-TREAT

Regulated Contaminant(s):

CAS No: 007783-06-4 HYDROGEN SULFIDE

Item 2-7.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

Biogas, generated by the anaerobic wastewater treatment system, flows to two biological scrubbers in series for hydrogen sulfide (H₂S) removal prior to being combusted in either the modified boiler (#7 boiler) or a back-up enclosed flare. Any H₂S remaining in the gas stream after the scrubbers is converted to sulfur dioxide (SO₂) in the combustion devices. The modified boiler provides steam to the Cascades Containerboard Packaging facility and can also operate on natural gas.

Based on operational data from 2015, the emission rate potential of the H₂S contained in the biogas is 7.2 pounds per hour. H₂S is assigned an environmental rating of 'B', and requires emissions to be controlled to a minimum efficiency of 90%.

The scrubbers achieved a destruction efficiency greater than 90%, based on 2015 operational data, without considering the additional control provided by the combustion devices.

Cascades Containerboard Packaging will monitor the scrubber inlet and outlet H₂S concentrations with periodic data recording performed electronically and manually. Adequate data must be maintained to calculate average H₂S concentrations and destruction efficiency.

The following records shall be kept on-site and made available to Department representatives on request:

- Dates and length of time that the flare is in use,
- Records of the biogas quantities combusted each month in the boiler and the flare,
- The average hydrogen sulfide content of the gas stream, and
- A scrubber and flare maintenance program along with records of routine control equipment maintenance.

Parameter Monitored: DESTRUCTION EFFICIENCY

Lower Permit Limit: 90 percent reduction

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Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING
DESCRIPTION

Averaging Method: MINIMUM - NOT TO FALL BELOW STATED
VALUE - SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY